DOCUMENT RESUME

ED 431 391 IR 019 522

AUTHOR Lancaster, Kenneth; Keiffer, Cheryl; Wooldridge, Deborah; McKee, Diane M.; King, Paula; Veneziano, Carol

TITLE Internet Research Applications in Health and Human Services Degree Programs: Promises and Problems.

PUB DATE 1998-04-00

NOTE 8p.; Paper presented at the Mid-South Instructional Technology Conference (3rd, Murfreesboro, TN, April 5-7, 1998).

AVAILABLE FROM Web site: http://www.mtsu.edu/~itconf/proceed98/klancaster.html

PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS Access to Information; *Computer Uses in Education; Evaluation Criteria; Higher Education; *Human Services; *Information Literacy; Information Sources; Nursing Education; Research Skills; Social Work; Student Motivation; *Student Research; *World Wide Web

IDENTIFIERS Criminal Justice; Southeast Missouri State University; Technology Integration

ABSTRACT

As research through the Internet becomes the method of choice by many students, assessment of Internet materials, student motivation to use traditional research methods, and other pedagogical concerns have become issues in the learning process. This paper describes experiences of faculty from several applied disciplines (i.e., social work, human environmental studies, criminal justice, and nursing) in the College of Health and Human Services at Southeast Missouri State University in the use of the Internet as a tool for student research. Information analysis, opinion synthesis, and methodological applications offer common problems and opportunities for the diverse disciplines. Assessment criteria, problems and solutions in the use of the Internet, and suggestions for possible efforts are reviewed. (Author/AEF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

Internet Research Applications in Health and Human Services Degree Programs: Promises and Problems

ED 431 391

Kenneth Lancaster, Ph.D.Assistant Professor **Department of Social Work** **c374ssw@semovm.semo.edu**	**Diane M. McKee, Ph.D., R.D.** **Assistant Professor** **Department of** **Human Environmental Studies** **c114huy@semovm.semo.edu**
Cheryl Keiffer, M.S.N., R.N.-C.S. **Assistant Professor** **Department of Nursing** **ckieffer@semovm.semo.edu**	**Paula King, Ph.D.** **Assistant Professor** **Department of** **Human Environmental Studies** **c880ssq@semovm.semo.edu**
Deborah Wooldridge, Ph.D. **Professor** **Department of** **Human Environmental Studies** **c751ssq@semovm.semo.edu**	**Carol Veneziano, Ph.D.** **Associate Professor** **Department of Criminal Justice** **c347ssc@semovm.semo.edu**

- Abstract
- Introduction
- Methodology
- Discussion
- Assessment Criteria for Internet Materials

Discipline-specific usage and findings:

- Social Work
- Human Enviromental Studies
- Criminal Justice
- Nursing
- Conclusions

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☐ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY
L. Lea
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Abstract

As research through the Internet becomes the method of choice by many students, assessment of Internet materials, student motivation to use traditional research methods, and other pedagogical concerns have become issues in the learning process. This paper describes experiences of faculty from several applied disciplines in the use of the Internet as a tool for student research. Information analysis, opinion synthesis, and methodological applications offer common problems and opportunities for the diverse disciplines . Assessment criteria, problems and solutions in the use of the Internet, and suggestions for possible efforts are reviewed.

[TOP]

Introduction

Consistent with Missouri higher education and University-wide strategic goals, improvement of student computer

IR019522

BEST COPY AVAILABLE

competencies is an ongoing initiative throughout Southeast Missouri State University and in the College of Health and Human Services (CHHS). A Fall 1995 survey of students within CHHS showed that less than 50% of students saw themselves as "proficient" in computer applications. A Spring 1997 survey with the same instrument suggests a meaningful improvement in this number, with some disciplines showing a positive response of nearly 100%. The use of the Internet has been a key component in these successful efforts of the College to improve student confidence and proficiency in computer applications.

The diverse applied disciplines of CHHS at Southeast, including Social Work, Human Environmental Studies, Criminal Justice, and Nursing, have adopted the Internet as a tool for classroom instruction and student research projects. The faculty in the degree programs within CHHS are sensitive to both the pedagogical usefulness of the Internet and the need for students to develop a significant skill needed in the professional worlds they are entering.

This paper describes the experiences of faculty at Southeast's CHHS with student use of the Internet for research projects and other assignments. Commonalties across departments and discipline-specific usage, problems, and opportunities are described and discussed. Most of this paper will be descriptive in nature with no claims being made about firm findings. These are the experiences of faculty dealing with a new and still largely untested tool for teaching and learning. The following discussion will be helpful to other faculty trying to adopt, and adapt to, this new pedagogical resource. The authors of this report believe that we are still just in the speculative stage of understanding the impact of the Internet as an innovation in teaching and learning environments. One author of this report (D. Wooldridge, 1998) noted that a troubling problem that has emerged in the use of the Internet, found in both faculty and student use, is the error of mixing knowledge of the tool used with knowledge obtained. In other words, we must not forget that the Internet is just a tool, a means to an end, and not the end itself.

[TOP]

Methodology

Past and present members of the information technology committee for the College of Health and Human Services were interviewed regarding their applications in the classroom of Internet use, their perceptions of its efficacy, and perceived contraindications for research application. The following discussion section will outline common findings and discipline-specific use of the Internet and discuss problems, opportunities and possible future use.

[TOP]

Discussion

Faculty from CHHS have noted that integration of materials from the Internet as a classroom requirement has resulted in increased student interest and creativity and enhanced student research efforts. Students exhibit, and often report, a high level of energy when making use of the Internet. Learning one computer modality leads to the use of others. For example, use of the Internet encourages student use of e-mail, word processing, spreadsheets, and statistical, and possibly other, software research packages. Students become less passive about how they pursue knowledge and are eager to share findings from Internet searches with fellow students and faculty. One student stated to an instructor that she appreciated being forced to seek out information for topic discussions and research papers rather than just having it "dumped in my lap" through lecture and other more traditional methods. These observations are consistent with other scholarly claims and opinions.

Identification of discipline appropriate web-sites, the development of course home pages, and the integration of the Internet into appropriate course assignments have been the most common efforts used by faculty to enhance student information technology skills. Efforts to integrate the Internet into the classroom and student projects increases the time faculty must put into course preparation. It has also expanded the useful data and information that can be delivered and enhanced the timeliness of that material.

Service is a defining characteristic of CHHS and a central goal in the college strategic plan. Networking with agencies, organizations, businesses, and individuals in the university service area is enhanced by the Internet. For students in remote learning sites, the Internet has the potential to provide information that previously would require travel. Students can prepare for, experience, identify, and eventually apply for positions within the service industry from their computer terminal. The computer can not substitute for real world work experience in the service industries but it can provide perspective. Practitioners in the fields in CHHS can research client problems and deliver educational service through the Internet.

Providing access to technology in general and the Internet specifically at remote sites is technically and educationally challenging. Remote sites are characterized by limited resources because students may or may not have computers at home. Skill levels are frequently underdeveloped and access to computer laboratories are severely limited. Rural technology development at Southeast Missouri State University is still in progress.

Use of the Internet as a part of the pedagogical process in applied disciplines prepares students for work environments where the exchange of knowledge has accelerated to the point that a new social worker, probation officer, dietitian, nurse, hotel manager, or fashion merchandiser who does not have reasonable competency in the use of computer technologies will be at an immense disadvantage. Any applied academic discipline that does not integrate computer technology into their curriculum will be doing their students a great disservice. The Internet, as a research tool, is an effective source for diverse opinions and ideas on controversial, rapidly changing issues. The welfare reform act of 1996, nutrition research issues such as anorexia nervosa in an aging population, and fluid fashion trends are but a few areas in which the rapidity of information challenges the student's ability to synthesize and use evolving ideas and materials.

Southeast Missouri State University engages in a University Studies program where critical thinking skills are emphasized. Technology enables students to become actively involved in this process as they determine the creditability of their sources. Developing skills in evaluating Internet materials can only enhance the student's critical thinking.

The Internet is recognized as a technological tool that can encourage and enhance student research. Materials and information from the Internet, however, may also be undisciplined, often misleading and inaccurate, and potentially counterproductive for both faculty and student research. Students are particularly vulnerable to unwise source selection from the Internet.

Procrastination among students in research assignments has always been a problem at the undergraduate level. This tendency is compounded by the ease of access to Internet research resources. Students may tend to put off even longer assignments that they feel can be completed by a few last hours on the Internet. Additionally, students appear to be more reluctant to utilize more traditional library research techniques.

As a communication tool, the Internet has its own unique problems. The "Case of the Disappearing Site" is new to research arenas. Researchers may lose printed material but can nearly always recover their source through the library system. The length of time that material remains available on the Internet is inconsistent. Not only can a site disappear but the content at a given site can be updated or revised without warning. Faculty trying to evaluate material cited from the Internet can be more than a little upset when the site is no longer active or the material is different from the student's original description of the material. Criteria for evaluating Internet material, the validity of Internet sites, and the impact of applied computer technologies on the classroom experience are both universal and discipline specific.

Student comfort and expertise with research techniques are now related to the student's perceptions of their computer skill and knowledge. Integrating small research projects or assignments across the curriculum enhances the skills necessary for larger endeavors. This use has contributed to the improvements in confidence reported above for CHHS. But the process of preparing new students for computer competency must always be revised and updated, with the need being great that new faculty be allowed, and required, to develop their pedagogical use of the Internet and other applications. If we are honest about the history of pedagogical innovation, academics must acknowledge we are in the infant stages for developing criteria for how to use computer applications for teaching and learning. We must clearly recognize the problems related to the suspect quality of much of the material on the Internet.

[TOP]

Assessment Criteria for Internet Materials

Developing adequate assessment criteria for Internet material must take into consideration the rapid turnover in material and the opened-ended nature of the access process that sends documents, data, and debate into hyper-space at a pace that would kill any librarian determined to keep their "computer stacks" clean of trash.

The research contents of the traditional university library are closely regulated. Criteria for materials selection and distribution are based on serious, scholarly standards. The Internet is unregulated, undisciplined, and frequently irresponsible in its selection and distribution of information. Efforts on the part of traditional research institutions to develop criteria for the assessment of Internet material is ongoing. Noted academic groups have developed appropriate citation methods for Internet materials. This discussion reflects the experiences of the authors.

Available Internet information is confounding to students when credibility is at issue or the sources unknown. Assessment of Internet information is an essential component of critical thinking. Establishing criteria for effective evaluation of Internet materials provides a common ground for all disciplines.

The effectiveness of the Internet as a source for controversial, current, and authoritative information varies from site to site, as well as discipline to discipline.

Assessing this information involves traditional issues such as the creditability of the site, the credentials of the author, and the obvious presence of bias in discussion. Unfortunately, not all Internet materials are referenced with their author nor do they necessarily have a citation of their source. Internet sites frequently do not have consistent regulatory bodies as foundation references. Scholarly efforts to "go to the source" can be confounded because sites and information are fluid. An almost endless maze of linked sites can lead the researcher into a jungle of convoluted paths of seemingly information rich sites that turn out to be dead ends. For students these problems are immense.

Student excitement in discovering what they think may be a site packed with vital information for research projects often overwhelms their sensitivity to the need to critically assess the material. Differences in faculty expectations compound the problem since there is no general consensus about what students may use and how well refereed material must be. One faculty may uncritically accept a bundle of Internet generated material from a student that another faculty may deem inappropriate.

Despite complaints regarding time required for downloading information, the rapid accessibility of information can lead to a distortion in perspective that encourages students to short cut by reading the abstract rather than the article. This "speed mania" is a problem in using the Internet for research . Students often pressed for time become victims.

Plagiarism by students is more appealing since faculty may not require that the Internet information be submitted with the paper. Faculty may perceive that printing electronic information is inappropriate since it is so easily accessed. Students, however, generally do not perceive that faculty will invest the time to check. The likelihood that the professor will have read non-referenced material is improbable.

Faculty are well advised to guide student Internet use with a clearly defined set of expectations. Faculty identification of key web sites provides students with a basis from which they can compare and assess information from less well known sites. Creativity is limitless and should be encouraged. Appropriateness and validity have an equally important role in developing an educated individual.

[TOP]

Discipline-specific usage and findings

Social Work

Social work students are highly resistant to activities that appear unrelated to learning how to "help" people on a personal level. Computer technology is viewed as cold and instrumental but social work students want to experience warmth and emotions. Students must be convinced of the close connection between the services they will provide and the knowledge and communications network that is becoming a connective foundation for all the social service industries. As social work education places more emphasis on the policy side of practice, computer literacy as an element of student skills and knowledge become paramount. Using the Internet to serve a client will become a skill as important as listening effectiveness and case planning.

Many social work students have to overcome an initial shyness about talking to someone in need. Participation by shy students in the emotionally challenging process of practice courses has been improved by the use of e-mail assignments and Internet searches. The use of computer assignments as a means to encourage shy students to become more active learners is an area in need of extensive research. Social work faculty at Southeast who use the Internet, e-mail, and Web Boards in class have watched normally quiet students come alive through interactive

computer applications and blossom in classroom discussions!

A highly productive use of the Internet by students has been in the pursuit of information on the rapidly changing structure of welfare provision. After August 1996, much of the material in social work textbooks became either obsolete or largely inaccurate about the structure of social programs for people in need. The 1996 "welfare reform" laws radically reshaped social provision. There are now fifty different developing state plans that could create fifty different welfare systems. There is a great deal of confusion over what system or systems may emerge over the next few years. This is the chaotic environment entry-level social workers will experience. Accurate information about state and local patterns of provision, Internet accessible, will become a significant part of any undergraduate social work program. Introductory, social welfare policy, and community textbooks alone will not be able to keep pace with the changes.

[TOP]

Human Environmental Studies

Human Environmental Studies is a multi-disciplinary department that encompasses Family and Consumer Sciences, Dietetics, Fashion Merchandising, and Food Service and Hospitality Management. Each program requires area specific resources and has uniquely individual programmatic research arenas. All areas are involved in Internet use with uniquely different applications.

Dietetics research encompasses medical issues, food technology, food systems management, and community nutrition programs. Knowledge base expansion is rapid and the traditional textbook tends to be outdated before it is in the hands of the student. The Internet provides a stream of information that is both current and creditable, depending upon the source. Dietetics educators are responsible for the dissemination of accurate information that has been appropriately documented and tested. The Internet challenges practitioners in that it is a quick avenue to creditable information but is also an abundant ground for the food and nutrition quack to disseminate information and sell products. Assisting students in differentiating the valid from the foolish is challenging since claims can be based on reality or totally fabricated. Critical assessment becomes more important as misinformation becomes more accessible.

Fashion Merchandising students, through the Internet, have access to the here and now fashion trends as they emerge in the market place. Trends reported are frequently more current than printed materials. One of the problems with Internet information in fashion merchandising is the abundance of promotional designs that tend to misrepresent actual trends.

Magazines devoted to fashion generally represent the view point of the retail fashion industry. Access to current newspapers, both nation- and world-wide, gives students insight into trends at a more regional level. Web sites devoted to a single point of view (www.walmartsucks.com) can provide insight into customer relation problems and consumer opinions. This again reinforces the need to develop critical analysis skills in students as they acquire and use information.

Family and Consumer Sciences Education is a broad based discipline that prepares professionals for formal and informal educational settings. Use of the Internet allows education students to access innovative teaching materials and investigate the latest research on pedagogy and andragogy. Family and Consumer Sciences Education students are expected to develop a multi-cultural perspective toward education. "Surfing the Net" allows them to interact globally and compare educational systems in other countries. The Internet and other technology allow students to build a knowledge base, apply the knowledge, and develop a professional portfolio.

Foodservice and Hospitality Management students must be able to access information on the Internet and be able to create and use it as a marketing tool in order be competitive in the hospitality industry. Benchmarking of competition can be facilitated via the Internet. Simply going to the home page of a competitor can provide valuable information regarding size, target market, cost to the consumer, and in many cases financial statements. Many major hospitality companies have placed their applications forms on the Internet. Interested applicants need only complete them and hit "send." In this era of the shrinking labor pool, accessing the applicant electronically is a means of assessing the applicant as well as recruiting them. Purchasing decisions can be greatly facilitated through the Internet because product parameters and specifications can be determined at any time without waiting for the purveyor or the mail. The difficulties are common to other disciplines. Accuracy, bias, and credibility are the major

concerns.

[TOP]

Criminal Justice

Criminal justice prepares its students for careers in law enforcement, corrections, and security management. The field of Criminal Justice makes use of the Internet as a source of current statistics on crime and law enforcement. The issues surrounding crime and law enforcement are politically charged. The potential distribution of inaccurate and misleading information in order to sway public opinion is immense. There are already considerable misconceptions about crime and justice. For example, a recent poll indicated that 37% of individuals polled believed that the insanity defense is used frequently. In actuality, it is used in less than 1% of cases.

There are a number of political organizations that put information on the Internet that sound good but the studies are seldom representative, often presented out of context, and designed to further the organization's political agenda. Students in Criminal Justice have earnestly reported information as though it were "the truth" when it may be an area of research where the findings are ambiguous or crucial information is neglected. For example, crime rates have been decreasing the past few years. Many people, groups, and organizations take credit for this decrease. Some have argued that the decrease is because of the "three strikes and you are out" laws, or because of allowing concealed weapons. These organizations neglect to mention that crime rates also dropped in states that do not have these laws. Of course, the flip side of this is that the Internet can be used to teach students to be cautious and that they need to evaluate the creditability of the source.

[TOP]

Nursing

Nursing is an applied discipline that is heavily involved with medical outcomes research, epidemiology, and health care standards. The Internet has become a prime source of information and interactive communication in part because of the rapidity of new research and policy developments . Instant access to Internet information has the potential to shorten the time from dissemination of findings to policy changes, and to modifications in professional standards and practice.

Although Nursing uses technology in everyday practice, faculty and students are very people oriented. For many, the use of the computer for information procurement and communication is a new modality, and somewhat intimidating. Since one-half (10) of the nursing faculty have been connected to local area network and Netscape within the last one year, faculty are exploring right along with the students.

Instructional technology faculty have found that, although assignments to "use the computer" help somewhat, direct demonstrations, workshops, specific site addresses and evaluations dramatically speed the process of curricular integration. Numerous workshops for faculty and all levels of students have been conducted, with printed step by step directions and group explorations of professional search engines and sites. The Department of Nursing Home Page has direct-linked and categorized dozens of "gold-mine" sites. These are serendipitously defined as professional sites that have been evaluated by nursing faculty , particularly those that offer multiple links to professional/political agencies and research institutions.

Most faculty now require some use of the Internet in their courses. Initially, sophomores are introduced to on-line indexes and journals for bibliography review, while juniors and seniors progress to selection of sites for presentation, group discussions, and use of teaching materials. One faculty member described the Internet as a survival tool for graduate students. Government resources have been invaluable in health care policy, community health, and research courses. Students can readily obtain legislative bills and viewpoints, contact local to federal agencies, receive mortality and morbidity reports from the Centers for Disease Control, and evaluate census data for aggregate community assessments.

[TOP]

Conclusions

Use of the Internet for student research is a double edged sword. While offering significant opportunities for materials access, it also creates the potential for academic disasters. These can occur as students misinterpret,

BEST COPY AVAILABLE

misrepresent, and misuse information.

Internet applications are extensive and are becoming essential. Acquiring current information in diverse disciplines is relatively easy and amazingly fast. Translating technology into a classroom technique has been, at least for this group of educators, largely a trial and error process.

Understanding and directing the process for creating productive student use of the Internet is an important issue. The educator must be committed to acquiring the technology skills, facilitating student skill acquisition, and implementing Internet applications into the classroom. These processes involves curricular revisions, continuous assessment of application success, and persistent monitoring of quality.

As a research tool, the Internet is a resource that require both faculty and students to critically evaluate content and credibility. Appropriate assessment criteria, site availability, and appropriate referencing are issues that faculty must define clearly for their students if quality research is to be the outcome. Criteria similar to that offered by the University At Albany Libraries (http://www.albany.edu.library/Internet/evaluate.html) need to be further developed and standardized.

As academics explore the Internet, applications emerge that are appropriate for classroom use. The ability to implement these applications is dependent upon accessible technology, appropriate skill levels, and appropriate attitudes.

The advantages are numerous. Student interest levels, willingness to try new technology increases, and ability to think critically also increases as they acquire expertise with the Internet.

[TOP]